

Power protection solutions for IT and Networking equipment

2016
2017



your energy
our expertise



An independent manufacturer

The benefit of a specialist

3,500 m²
of test platforms

One of the leading independent power testing labs in Europe

60,000
on-site interventions per year

Nearly 400 experts in commissioning, technical audit, consultancy and maintenance

10%
of turnover invested in R&D

Always at the cutting-edge of technology for innovative, high-quality products



SO innovative!

Since its foundation more than 90 years ago, SOCOMEC continues to design and manufacture its core products in Europe. Notably solutions for its primary mission: the availability, control and safety of low voltage electrical networks.

As an independent manufacturer, the Group is committed to constant innovation to improve the energy performance of electrical installations in infrastructures as well as industrial and commercial sites.

Throughout its history, SOCOMEC has constantly anticipated market changes by developing cutting-edge technologies, providing solutions that are adapted to customer requirements and fully in keeping with international standards.

"Optimising the performance of your system throughout its life cycle" - this is the commitment carried out every day by the SOCOMEC teams around the world, wherever your business is located.

SYDW 161 B



Your energy, our expertise



Critical Power *Ensuring the availability and storage of high quality power*

With its wide range of continuously evolving products, solutions and services, Socomec are recognised experts in the cutting-edge technologies used for ensuring the highest availability of the electrical power supply to critical facilities and buildings, including:

- static uninterruptible power supplies (UPS) for high-quality power free of distortions

and interruptions occurring on the primary power supply,

- changeover of static, high availability sources for transferring the supply to an operational back-up source,
- permanent monitoring of the electrical facilities to prevent failures and reduce operating losses,
- energy storage for ensuring the proper energy mix of buildings and for stabilisation of the power grid.



© Datacock



Power Control & Safety *Managing power and protecting persons and facilities*

Active in the industrial switching market since its foundation in 1922, Socomec is today an undisputed leader in the field of low voltage switchgear, providing expert solutions that ensure:

- isolation and on load breaking for the most demanding applications,
- continuity of the power supply to electrical facilities via manual or automatic changeover switching systems,
- protection of persons and assets via fuse-based and other specialist solutions.



APPLI 575A



Energy Efficiency *Managing the energy performance of buildings*

Socomec solutions, from current sensors through to a wide choice of innovative scalable software packages are driven by experts in energy performance. They meet the critical requirements of facility managers and operators of commercial, industrial and local authority buildings for:

- measuring energy consumption, identifying sources of excess consumption and raising the awareness of occupants about their impact,
- limiting reactive energy and avoiding the associated tariff penalties,
- using the best available tariffs, checking utility bills and accurately distributing energy billing among consumer entities,
- monitoring and detecting insulation faults.



APPLI 571A



Expert Services *Enabling available, safe and efficient energy*

Socomec is committed to delivering a wide range of value-added services to ensure the reliability and optimisation of end-users' equipment:

- prevention and service operations to lower the risks and enhance the efficiency of operations,

- measurement and analysis of a wide range of electrical parameters leading to recommendations for improving the site's power quality,
- optimisation of the total cost of ownership and support for a safe transition when migrating from an old to a new generation of equipment.
- consultancy, deployment and training from the project engineering stage through to final procurement.



APPLI 760A



Critical Power solutions

IT APPLICATION SOLUTIONS

Desktop / Tower UPS

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ITYS	p. 20
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19" Rack & Rack/Tower convertible UPS

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Solution for marine applications

NETYS RT-M	p. 16
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Static Transfer Systems

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Power Distribution Unit (PDU)

RACK PDU	p. 26
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Communication and Connectivity	p. 28
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NETYS PE

Practical and cost-effective protection
from 600 to 2000 VA

Single-phase UPS



NETYS PE
600/650/850 VA

NETYS PE
1000 VA

NETYS PE
1500/2000 VA

The solution for

- > CAD, graphic workstations
- > Multimedia workstations and peripherals
- > LCD screens and monitors
- > POS (Points Of Sales)

Technology

- > VI "line interactive" with AVR, step wave

Certifications

IS 16242 (Part 1)/
IEC 60240-1



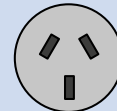
R-41030651



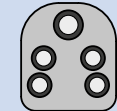
Output connections



- > IEC socket 320 (C13)



- > Australian standard



- > Indian standard (BIS compliant)

Ideal and cost-effective protection for SOHO or POS applications

- Adapted to protect IT applications in home, office and retail environments.
- A complete range of six models to adapt the power to the equipment's consumption or to required back-up time.

Easy to use

- Control panel with graphical icons LCD / LEDs allowing the operating mode to be easily monitored.

A solution for network power cuts and voltage fluctuations

- The integrated AVR function (Automatic Voltage Regulation) stabilizes the output voltage and avoids the switching to Battery Mode operation, therefore saving the battery to support critical power cut events.

Simplified connection

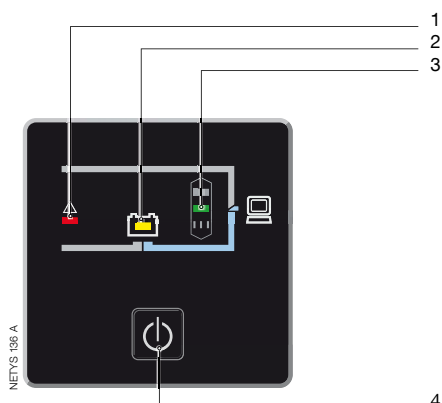
- Several output sockets (IT standard) simplify the connectivity to computer and IT peripherals.

Protection for your data line

- Integrated NTP protection for LAN/ADSL connection against the risk of data line overvoltage.

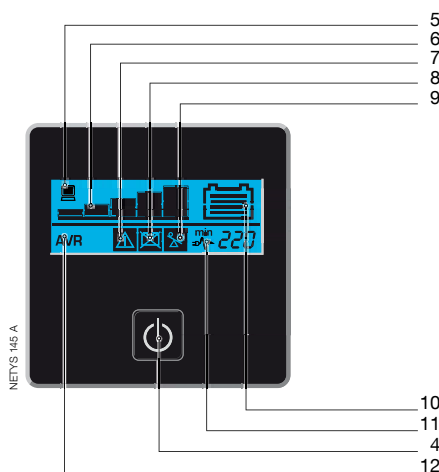
Some models may not be available in your country – please check with your local sales office.

Control panel



600 / 650 / 850 VA

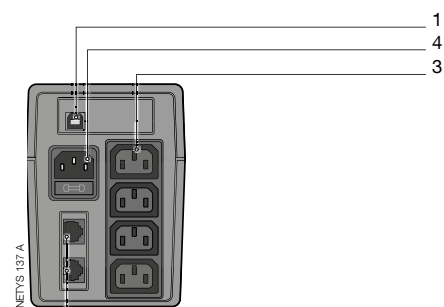
1. Alarm
2. Operation with battery
3. Normal operation
4. On / Off
5. Load present
6. Load level (5 steps)



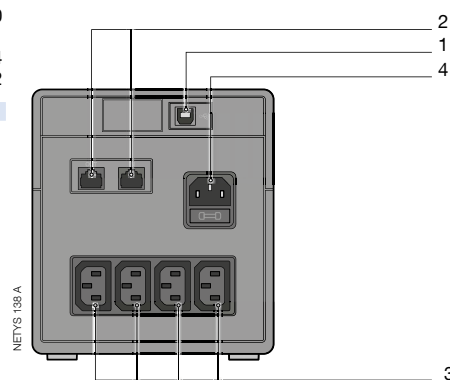
1000 / 1500 / 2000 VA

7. General Alarm
8. Battery fault / Replace the battery
9. Overload
10. Battery capacity
11. Normal mode / Battery mode (flashing)
12. Automatic Voltage / Regulation active

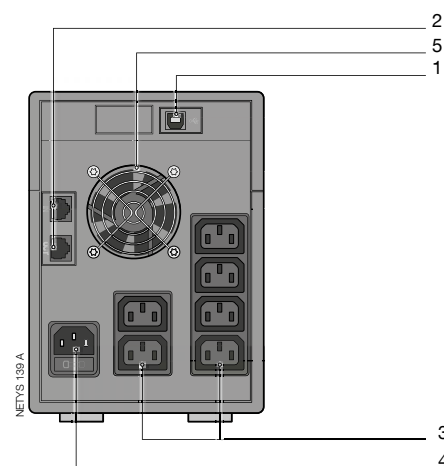
Connections - IEC 320 (C13)



600 / 650 / 850 VA



1000 VA



1500 / 2000 VA

1. USB serial port
2. NTP data line suppressor
3. UPS output sockets
4. Input socket and fuse
5. Fan / air vents

Technical data

NETYS PE							
Sn (VA)	600	650	850	1000	1500	2000	
Pn (W)	360	360	480	600	900	1200	
Input/output	1/1						
INPUT							
Rated voltage	230 V						
Voltage tolerance	170 - 280 V (IEC and Australian standards), 140 - 300 V (Indian standard)						
Rated frequency	50/60 Hz with automatic selection						
Mains connection	IEC320 socket (IEC and Australian standards), cable with plug (Indian standard)						
OUTPUT							
Automatic Voltage Regulation (AVR)	•	•	•	•	•	•	
Rated voltage	230 V ±10%						
Rated frequency	50/60 Hz ±1%						
Wave form	Step wave						
Protection	Overload, significant discharge and short circuit						
CONNECTIONS							
IEC standard	4 x IEC 320 (C13)			6 x IEC 320 (C13)			
Asustralian standard	-	2 sockets		4 sockets			
Indian standard	3 sockets	-	-	4 sockets	-		
BATTERIES							
Type	Sealed lead-acid maintenance free - expected life 3/5 years						
Back-up time ⁽¹⁾	15 min	15 min	20 min	45 min	55 min	60 min	
COMMUNICATION							
Interfaces	USB						
Local communication software	Local View						
Data Line protection	NTP data line suppressor						
UPS CABINET							
Dimensions W x D x H	100 x 290 x 145 mm		145 x 345 x 165 mm		145 x 390 x 205 mm		
Weight	5.0 kg	5.2 kg	6.0 kg	9.7 kg	11.2 kg	12 kg	
STANDARDS							
Safety	IEC/EN 62040-1, AS 62040.1.1, AS 62040.1.2						
EMC	IEC/EN 62040-2, AS 62040.2						
Product declaration	CE, RCM (E2376)						
BIS certification	-	-	-	R-41030651	-	-	

(1) PC + 17" LCD monitor.

Standard communication features

- LOCAL VIEW: ideal UPS monitoring and shutdown point-to-point solution for Windows®, Linux and Mac OS X® operating systems.



NETYS PR

Space saving reliable protection
from 1000 to 2000 VA - Mini Tower

Single-phase UPS



NETYS PR
1000 VA

NETYS PR
1500/2000 VA

The solution for

- > Professional and IT equipment
- > Servers and networking devices
- > CAD / graphic workstations with monitors and peripherals
- > Control systems

Technology

- > VI "line interactive" with AVR, sine wave

Certifications



Professional line interactive UPS

- Ideal solution for protecting small servers and high performance CAD or graphic workstations.
- Assures service continuity to critical applications.
- Designed for professional applications: the sine wave inverter technology assures full compatibility with any kind of load and power supply.
- Minitower case to easily fit close to the IT load to be supplied and protected.

A solution for network power cuts and voltage fluctuations

- The integrated AVR function (Automatic Voltage Regulation) stabilizes the output voltage and avoids the switching to Battery Mode operation, therefore saving the battery to support critical power cut events.

Easy to use

- Control panel with graphical icons LCD allowing the operating mode to be easily monitored.

Simplified connection

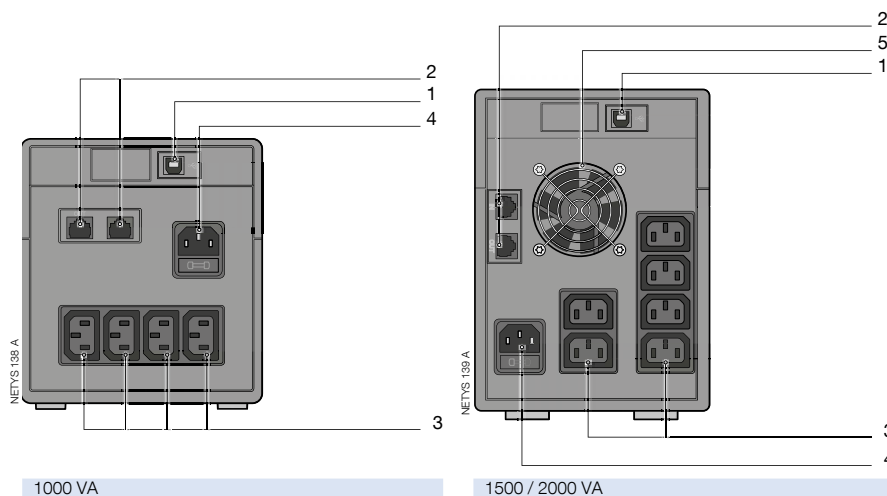
- Several IEC 320 sockets (IT standard) simplify the connectivity to computer and IT peripherals.

Protection for your data line

- Integrated NTP protection for LAN/ADSL connection against the risk of data line overvoltage.

Some models may not be available in your country – please check with your local sales office.

Connections



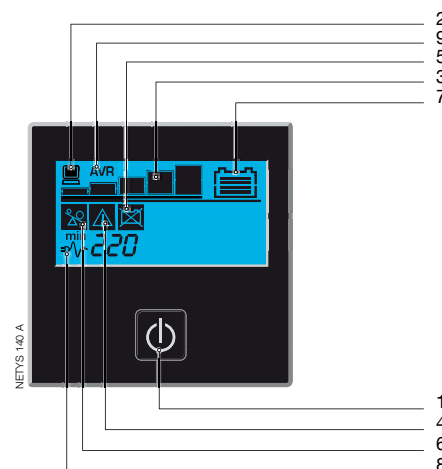
1000 VA

1500 / 2000 VA

1. USB serial port
2. NTP data line suppressor
3. UPS output sockets

4. Input socket and fuse
5. Fan / air vents

Control panel



1. On / Off
2. Load present
3. Load level (5 steps)
4. General Alarm
5. Battery fault / Replace the battery
6. Overload
7. Battery capacity
8. Normal mode / Battery mode (flashing)
9. Automatic Voltage / Regulation active

Technical data

NETYS PR Mini Tower			
Sn	1000 VA	1500 VA	2000 VA
Pn	700 W	1050 W	1400 W
Input/output	1/1		
INPUT			
Rated voltage	230 V		
Voltage tolerance	170 - 280 V		
Rated frequency	50/60 Hz with automatic selection		
Mains connection	IEC320 socket		
OUTPUT			
Automatic Voltage Regulation (AVR)	•	•	•
Rated voltage	230 V ±10%		
Rated frequency	50/60 Hz ±1%		
Wave form	Sine wave		
Protection	Overload, significant discharge and short circuit		
Connections	4 x IEC 320 (C13)	6 x IEC 320 (C13)	
BATTERIES			
Type	Sealed lead-acid maintenance free - expected life 3/5 years		
Back-up time ⁽¹⁾	45 min	55 min	60 min
COMMUNICATION			
Interfaces	USB		
Local communication software	Local View		
Data Line protection	NTP data line suppressor		
UPS CABINET			
Dimensions W x D x H	145 x 345 x 165 mm	145 x 390 x 205 mm	
Weight	9.2 kg	12.3 kg	13.2 kg
STANDARDS			
Safety	IEC/EN 62040-1, AS 62040.1.1, AS 62040.1.2		
EMC	IEC/EN 62040-2, AS 62040.2		
Product declaration	CE, RCM (E2376)		

(1) PC + 17" LCD monitor.

Standard communication features

- LOCAL VIEW: ideal UPS monitoring and shutdown point-to-point solution for Windows®, Linux and Mac OS X® operating systems.



NETYS PR

High performance protection on rack or tower
from 1700 to 3300 VA - Rack/Tower

Single-phase UPS



The solution for

- > Professional and IT equipment
- > Servers and networking devices
- > CAD / graphic workstations with monitors and peripherals
- > Control systems

Technology

- > VI "line interactive" with AVR, sine wave

Certifications



A secure and professional supply continuity

- Ideal solution for protecting small servers, networking devices and peripherals.
- Assures service continuity to critical applications.
- Designed for professional applications: the sine wave inverter technology assures full compatibility with any kind of load and power supply.

Tailored to IT networking

- The space and time-saving tower/rack conversion option means it can be installed easily either in tower mode or inside standard 19" rack cabinets depending on the user's needs.

Simple to install

- No configuration needed on first startup.
- Compact footprint (2U/89 mm) for installation in rack cabinets.
- Attractive design for visible installation in offices.
- USB port and HID protocol as standard for direct interfacing with Windows® systems, without the need for additional specialist software.

Protection for your data line

- Integrated NTP protection for LAN/ADSL connection against the risk of data line overvoltage.

Meets practical needs

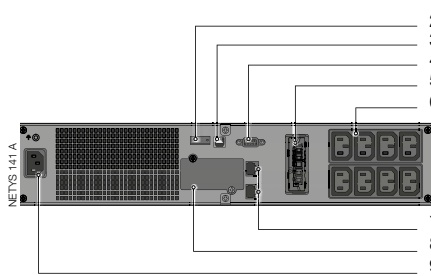
- Optional battery extension modules (EBM) to meet all back-up time requirements, even after installation.
- Clear and uncluttered LCD interface, with buzzers that immediately indicate the operating status of the UPS, even for less specialist users.
- Simplified maintenance and Battery 'hot swap', without closing down other applications.

Easy to use and to integrate

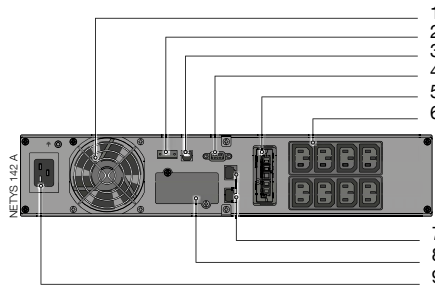
- Wide range of communication protocols available in options (including JBUS, TCP/IP and SNMP) for integration into LAN networks or building management systems (BMS).
- Easy connections to the applications (depending on power) via 8 or 8+1 IEC 320 (IT standard) sockets.
- Load segmentation function to prioritize loads and manage critical situations.
- EPO (Emergency Power Off) emergency stop.
- RS232 advanced connections for the management of the power supply and local/remote shutdown of applications.

Some models may not be available in your country – please check with your local sales office.

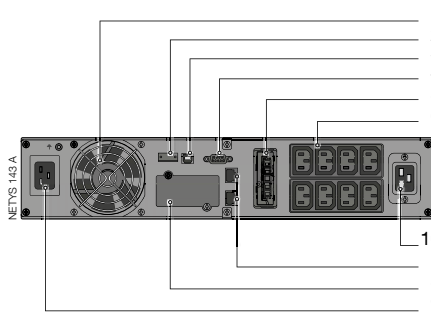
Connections



1700 VA



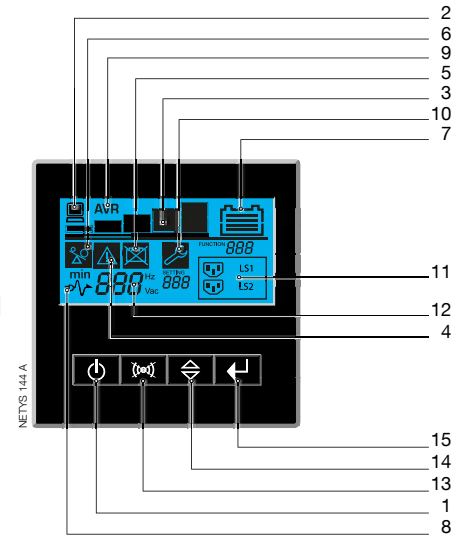
2200 VA



3300 VA

1. Fan / air vents
2. EPO Emergency Power Off
3. USB serial port
4. RS232 serial port
5. Connector for external battery extension
6. UPS output sockets (2 segments)
7. NTP protections (RJ45)
8. Slot for optional communication boards
9. Input socket
10. UPS full power output socket

Control panel



1. On / Off
2. Load present
3. Load level (5 steps)
4. General Alarm
5. Battery fault / Replace the battery
6. Overload
7. Battery capacity
8. Normal mode / Battery mode (flashing)
9. Automatic Voltage / Regulation active
10. Configuration
11. Programmable outlets
12. Input value
13. UPS test / Buzzer off
14. Navigator button
15. Enter

Technical data

NETYS PR Rack/Tower			
Sn	1700 VA	2200 VA	3300 VA
Pn	1350 W	1800 W	2700 W
Input/output	1/1		
INPUT			
Rated voltage	230 V		
Voltage tolerance	161 V \pm 4% (selecting wide mode) -276 V \pm 4%		
Rated frequency	50/60 Hz with automatic selection		
Mains connection	IEC320-C14 (10 A)	IEC320-C20 (16 A)	
OUTPUT			
Automatic Voltage Regulation (AVR)	The AVR increases (boost 1) the output voltage by 14% when the input voltage drops below 90% of the nominal value. The AVR decreases (bucks) the output voltage by 12% when the input voltage rises above 106% of the nominal value.		
Rated voltage	230 V \pm 5%		
Rated frequency	50/60 Hz \pm 0.1%		
Power factor	0.9 @ 1500 VA	0.9 @ 2000 VA	0.9 @ 3000 VA
Wave form	Sine wave		
Protection	Normal Mode: overload (110% for 3 minutes) Battery Mode: overload (110% for 30 seconds); shortcircuit protected		
Connections	8 (10 A) x IEC 320		8 (10 A) x IEC 320 1 (16 A) x IEC 320
BATTERIES			
Type	Sealed lead-acid maintenance free - expected life 3/5 years		
Back-up time ⁽¹⁾	6 min	8 min	6 min
COMMUNICATION			
Interfaces	RS232 - USB		
Ethernet adapter	NET VISION (TCP/IP & SNMP) optional card		
Local communication software	Local View		
Data line protection	NTP data line suppressor: RJ45 10 Base T		
UPS CABINET			
Dimensions W x D x H	440 x 436 x 87 mm		440 x 608 x 87 mm
Weight	18 kg	28.2 kg	31.5 kg
STANDARDS			
Safety	IEC/EN 62040-1, AS 62040.1.1, AS 62040.1.2		
EMC	IEC/EN 62040-2, AS 62040.2		
Product declaration	CE, RCM (E2376)		

(1) @ 75% of load.

Standard communication features

- LOCAL VIEW: ideal UPS monitoring and shutdown point-to-point solution for Windows®, Linux and Mac OS X® operating systems.
- HID: UPS management based on Windows® and Mac OS X® embedded service - USB interface.
- MODBUS RTU (RS232).

Communication options

- NET VISION: professional WEB/SNMP interface for UPS monitoring and shutdown management of several operating systems.
- Dry-contact interface.
- Rails

Battery extensions

NETYS PR	+ 1 (NPR-B1700-RT)	+ 2 (NPR-B1700-RT)
1700 VA	22 min	42 min
NETYS PR	+ 1 (NPR-B3300-RT)	+ 2 (NPR-B3300-RT)
2200 VA	37 min	72 min
3300 VA	22 min	43 min



NETYS RT

Total protection on rack or tower
from 1100 to 11000 VA

Single-phase UPS



The solution for

- > Switching
- > Storage
- > Servers and networking devices
- > VoIP communication systems
- > Structured cabling systems
- > Control systems
- > Video surveillance systems

Technology

- > VFI "online double conversion"

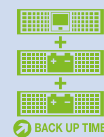
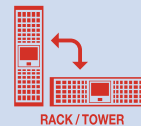
Certifications



IS 16242 (Part 1)/
IEC 60240-1



Advantages



High protection and availability

- Online double conversion technology with sinusoidal waveform, completely filters out all disturbances from / to the mains power supply and ensures maximum protection of the utility.
- Permanent regulation of output voltage and frequency.
- Wide tolerance of the input voltage reduces switchovers to battery mode, prolonging battery life.

Simple to install

- No configuration necessary on first startup.
- Space and time saving 'tower-to-rack' conversion mode.
- IEC input and output connections (1100-3300 VA) or terminal input and output connections with built-in magnetothermal input switch (5000-11000 VA).
- Compact footprint (tower mode).
- Compact rack enclosure saving valuable cabinet rack space.

Easy to use

- Clear and uncluttered LCD interface, with buzzers that immediately indicate the operating status of the UPS, even for less specialist users.
- Wide range of communication protocols for integration into LAN networks or Building Management Systems (BMS).
- Load segmentation function to prioritize loads and manage critical situations.
- EPO (Emergency Power Off).
- RS232 advanced connection for the management of power supply and local/remote shutdown of the applications.

Meets practical needs

- Modular battery extension (EBM) to meet all back-up time requirements, even after installation.
- Possibility of 1+1 parallel redundant configuration to maximise the availability of critical utilities, even in the event of a module breakdown (5000-11000 VA).

Some models may not be available in your country – please check with your local sales office.

Standard electrical features

- Built-in backfeed protection.
- RJ11 connection for Emergency Power Off (EPO).
- Connection for battery extension modules.
- Port for parallel operation (5000-11000 VA).

Electrical options

- 1+1 parallel module (5000-11000 VA).
- Battery extension modules.
- Manual bypass without interruption (5000-11000 VA).
- Hot-swap manual bypass (1100-3300 VA).
- Portable multiple German standard outlets with cable and IEC 320-C20 plug.

Standard communication features

- LOCAL VIEW: ideal UPS monitoring and shutdown point-to-point solution for Windows®, Linux and Mac OS X® operating systems.
- HID: UPS management based on Windows® and Mac OS X® embedded service - USB interface (1100-3300 VA).
- MODBUS RTU (RS232).
- RT-VISION: professional WEB/SNMP interface for UPS monitoring and shutdown management of several operating systems (5000-11000 VA).

Communication options

- RT-VISION: professional WEB/SNMP interface for UPS monitoring and shutdown management of several operating systems (1100-3300 VA).
- Dry-contact interface.
- Environmental Monitoring Device (EMD).

Technical data

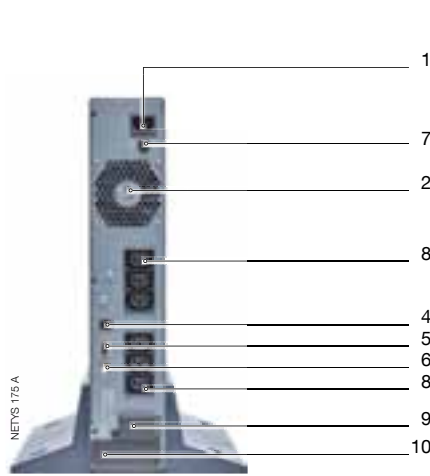
NETYS RT								
Sn	1100 VA	1700 VA	2200 VA	3300 VA	5000 VA	7000 VA	9000 VA	11000 VA
Pn	900 W	1350 W	1800 W	2700 W	4500 W	5400 W	7200 W	9000 W
Architecture	online double conversion VFI with input PFC and automatic bypass							
Parallel redundant function	-	-	-	-	1+1	1+1	1+1	1+1
INPUT								
Voltage	230 V (1ph) 175÷280 V; up to 120 V @70% load				230 V (1ph) 181÷280 V; up to 100 V @50% load			
Frequency	50/60 Hz +/-10% (Auto-Selectable)							
Power factor / THDi	>0.99 / <5%							
Input socket	IEC 320-C14 (10 A)	IEC 320-C20 (16 A)			terminals			
OUTPUT								
Voltage	230 V (1ph) selectable 200 / 208 / 220 / 240 V - 50 or 60 Hz ± 2% (± 0.05 Hz in battery mode)							
Power factor	0.9 @ 1000 VA	0.9 @ 1500 VA	0.9 @ 2000 VA	0.9 @ 3000 VA	0.9 @ 5000 VA	0.9 @ 6000 VA	0.9 @ 8000 VA	0.9 @ 10000 VA
Efficiency	up to 93% online mode				up to 92% online mode			
Overload capability	up to 105% continuously; 125% x 3 min; 150% x 30 sec				up to 105% continuously; 125% x 5 min; 150% x 30 sec			
Output connections	6 x IEC 320-C13 (10 A)	6 x IEC 320-C13 (10 A) + 1 x IEC 320-C19 (16 A)			terminals			
BATTERY								
Standard autonomy ⁽¹⁾	8	12	8	10	8	6	8	6
Voltage	24 VDC	48 VDC	48 VDC	72 VDC	192 VDC	192 VDC	240 VDC	240 VDC
Recharge time	< 3 hr to recover 90% capacity				< 6 hr to recover 90% capacity			
COMMUNICATION								
Mimic panel	LCD with graphical icons				LCD with menu available in 6 languages			
RS232 MODBUS protocol	•	•	•	•	•	•	•	•
USB HID protocol	•	•	•	•	-	-	-	-
WEB/SNMP (Ethernet RJ45 port)	option	option	option	option	•	•	•	•
COMM slot	•	•	•	•	•	•	•	•
Dry contacts card	option	option	option	option	option	option	option	option
EPO input (RJ11 port)	•	•	•	•	•	•	•	•
Parallel port	-	-	-	-	•	•	•	•
STANDARDS								
Safety	IEC/EN 62040-1, AS 62040.1.1, AS 62040.1.2							
EMC	IEC/EN 62040-2, AS 62040.2							
Product declaration	CE, RCM (E2376)							
BIS certification	-	-	-	-	R-41050814	-	-	-
ENVIRONMENT								
Operating ambient temperature	from 0 °C to +40 °C (from 15 °C to 25 °C for best battery life)							
Storage temperature range	from -15 °C to +50 °C (from 15 °C to 25 °C for best battery life)							
Relative Humidity	5-95% non-condensing							
Noise level (ISO 3746)	< 45 dBA	< 50 dBA			< 55 dBA			
UPS CABINET								
UPS size std (W x D x H)	89x333x440 mm	89x430x440 mm	89x430x440 mm	89x608x440 mm	177.5x670x440 mm	177.5x670x440 mm	261x623x440 mm	261x623x440 mm
UPS size RACK	2U	2U	2U	2U	2U+2U	2U+2U	3U+3U	3U+3U
UPS weight std	13 kg	18 kg	19 kg	30 kg	15.5+40 kg	16+40 kg	19.5+66 kg	20+66 kg
IP rating	IP20							
EBM module size (W x D x H)	89x340x440 mm	89x438x440 mm	89x438x440 mm	89x610x440 mm	89x608x440 mm	89x608x440	130.5x623x440 mm	130.5x623x440 mm
EBM module RACK	2U	2U	2U	2U	2U	2U	3U	3U
EBM module weight	16 kg	29 kg	29 kg	43 kg	40 kg	40 kg	66 kg	66 kg

(1) @75% of rated load PF 0.7.

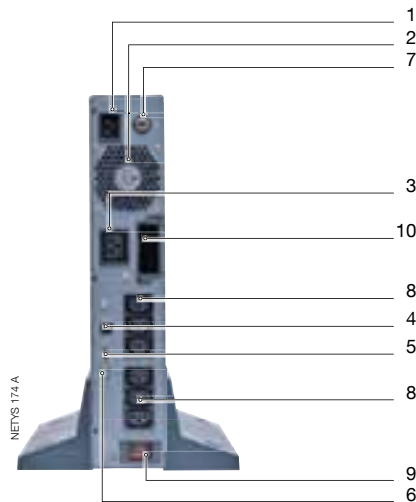
NETYS RT

Single-phase UPS
from 1100 to 11000 VA

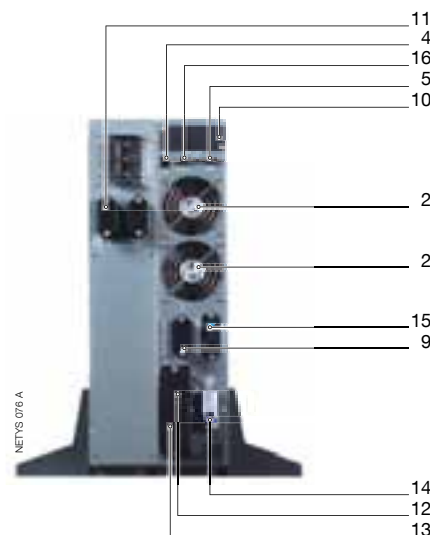
Connections



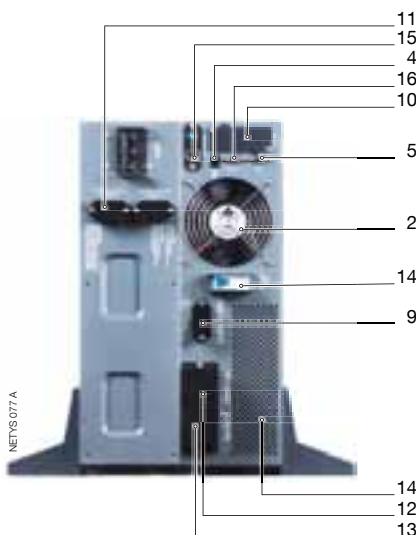
1100 VA



1700 VA - 2200 VA - 3300 VA



5000 VA - 7000 VA + battery



9000 VA - 11000 VA + battery

Converts from Tower to Rack mounted



APPL067 - 068 - 069 - 060 - 061 - 062 - 063 - 064 A

- | | |
|--------------------------------------|---|
| 1. Mains input socket (IEC 320) | 9. Connector for external battery extension |
| 2. Fan | 10. Slot for optional communication boards |
| 3. Output socket (full power) | 11. Battery extension connector |
| 4. EPO (Emergency Power Off) input | 12. Output terminals |
| 5. RS232 interface (MODBUS protocol) | 13. Input terminals |
| 6. USB port | 14. Input switch |
| 7. Input protection | 15. RJ45 LAN ethernet connector |
| 8. Output sockets (IEC 320 - 10 A) | 16. Parallel port connector |

Electrical options



NETYS 181 A

Portable multiple
German standard sockets



NETYS 182 A

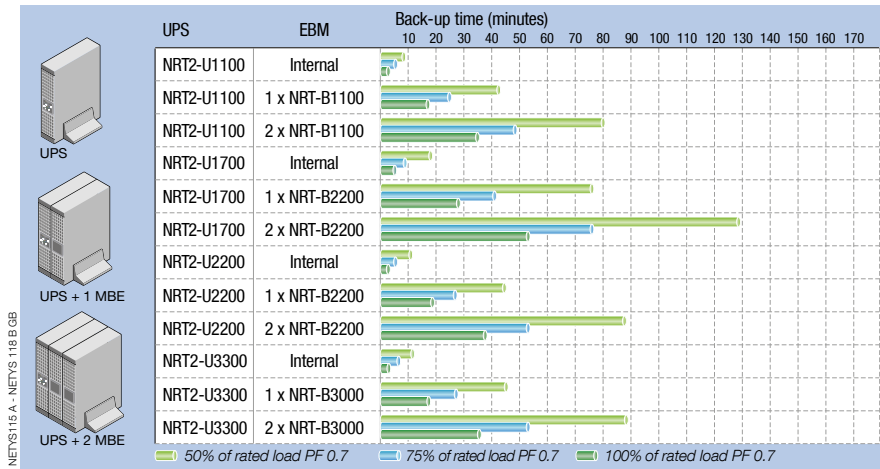
Manual bypass
(5000-11000 VA)



NETYS 183 A

Hot-swap manual bypass
(1100-3300 VA)

NETYS RT 1100-3300 VA - Battery extension



Parallel redundant operation for business continuity

To achieve the highest level of availability and to power critical utilities, NETYS RT UPS modules above 3.3 kVA can be configured for 1:1 redundancy.

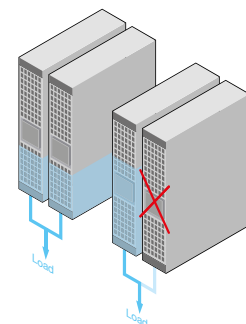
Redundant operation (1+1) means: the system incorporates one more UPS module than is needed to protect the load; in the event of a breakdown, it guarantees sufficient power supply capacity to the load by maintaining online protection.

Parallel technology is based on the principle of load sharing, whereby both units are always kept active.

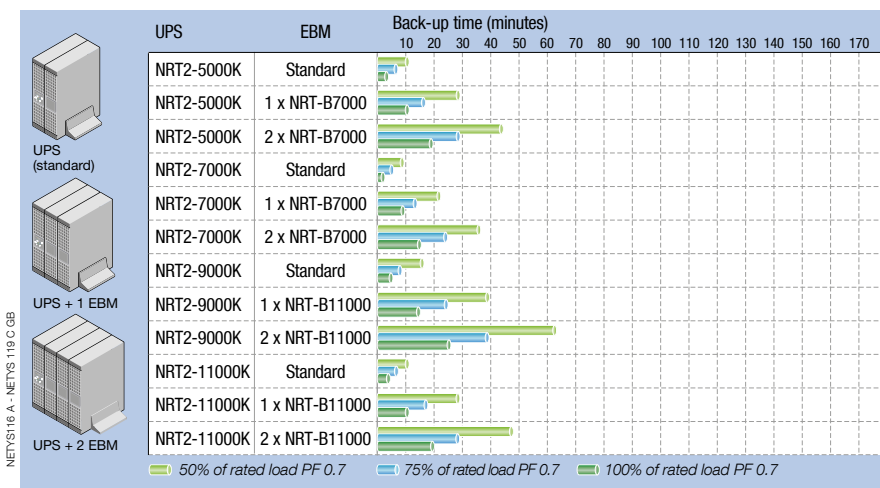
In a redundant configuration, overall system availability is much higher than a conventional UPS system using similar technology.

1+1 redundant configuration does not require additional circuits and can therefore be set up at a later date, simply by using two UPS modules and a collector/manual bypass module which simplifies cabling and maintenance of the UPS installation.

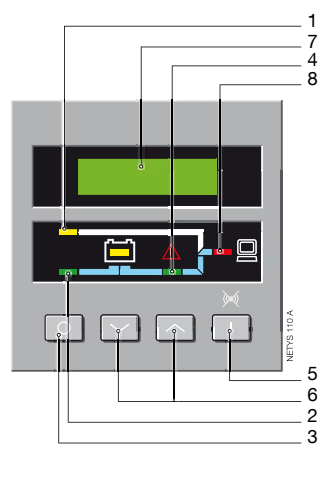
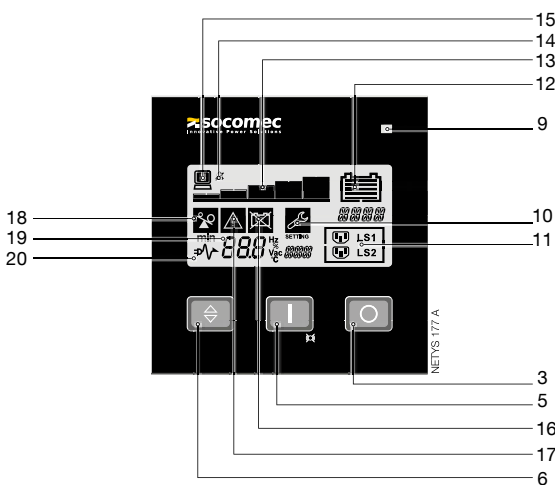
To further streamline the solution, it is also possible to select between operation with separate battery or shared battery, which is extremely useful in the case of applications requiring high levels of autonomy.



NETYS RT 5000-11000 VA - Battery extension



Control panel



1. Yellow LED lit. Operation in bypass mode
2. Green LED lit. Mains healthy
3. OFF button
4. Green LED lit. Normal operation (inverter in-line)
5. ON/TEST and buzzer override button
6. Navigator button
7. Alphanumeric LCD display
8. Green LED lit. Status of the load
9. Load status
10. Configuration
11. Programmable outlets
12. Battery status
13. Load level (5 steps)
14. Buzzer off
15. Load present
16. Battery fault / Replace the battery
17. General alarm
18. Overload
19. Input value
20. Normal mode / Battery mode (flashing)

1100 VA - 1700 VA - 2200 VA - 3300 VA

5000 VA - 7000 VA - 9000 VA - 11000 VA



NETYS RT-M

Solution for marine applications
from 1100 to 3300 VA

Single-phase UPS

GAMME 803 A



The solution for

- > Steering systems
- > Bridge systems
- > Radar systems
- > Control systems
- > Video surveillance systems

Certifications



High availability in marine environments

The marine industry calls for reliable equipment which is able to supply applications operating in harsh environments. In such a context, power outages cause extremely serious problems to critical equipment for the navigation system, and communication and engine controls, which leads to costs increasing. In line with the company's commitment to develop innovative solutions to ensure availability, improve energy efficiency and reduce costs, SOCOMEC has introduced NETYS RT-M, high-performance UPS DNV GL standard certified.

Meets practical needs

- Online double conversion technology with sinusoidal waveform, to completely filter out all disturbances from / to the mains power supply and to ensure maximum protection of the equipment.
- Optional battery extension modules (EBM) to meet wide back-up time requirements, even after installation.
- Clear and uncluttered LCD interface, with buzzers that immediately indicate the operating status of the UPS, even for less specialist users.

Easy to use

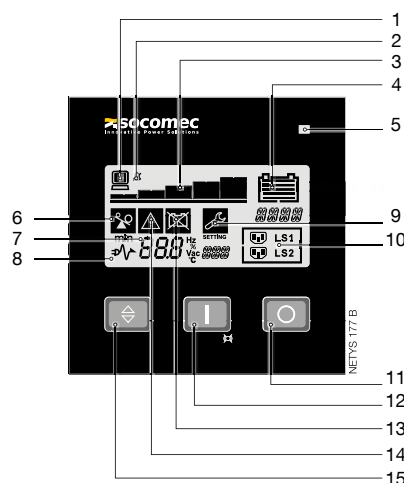
- Easy configurable frequency converter operation (50 Hz, 60 Hz).
- No configuration necessary on first startup.
- Wide range of communication protocols (including TCP/IP and SNMP) for integration into LAN networks or building management systems (BMS).

Technical data

NETYS RT-M				
Sn	1100 VA	1700 VA	2200 VA	3300 VA
Pn	900 W	1350 W	1800 W	2700 W
Architecture	on-line double conversion VFI with input PFC and automatic bypass			
INPUT				
Rated voltage	230 V (1ph)			
Voltage tolerance	175÷280 V; up to 120 V @70% load			
Rated frequency	50/60 Hz			
Frequency tolerance	± 10% (Auto-Selectable)			
Power factor / THDI	> 0.99 / < 5%			
OUTPUT				
Rated voltage	230 V (1ph)			
Voltage tolerance	selectable 200/208/220/240 V			
Rated frequency	50 or 60 Hz			
Frequency tolerance	± 2% (± 0.05 Hz in battery mode)			
Power factor	0.9 @ 1000 VA	0.9 @ 1500 VA	0.9 @ 2000 VA	0.9 @ 3000 VA
Efficiency	up to 93% online mode			
Overload capability	up to 105% continuously; 125% for 3 min; 150% for 30 s			
Connections	6 x IEC 320-C13 (10 A)		6 x IEC 320-C13 (10 A) + 1 x IEC 320-C19 (16 A)	
BATTERY				
Standard autonomy ⁽¹⁾	8 min	12 min	8 min	10 min
Voltage	24 VDC		48 VDC	
Recharge time	< 6 hours to recover 90% capacity			
COMMUNICATION				
Interfaces	RS232 (DB9 port) MODBUS protocol, USB HID protocol			
Ethernet	WEB / SNMP (Ethernet RJ45 port) - option			
COMM slots	1 available as standard			
Dry contacts card	option			
EPO input	RJ11 port			
Modem/ADSL surge protection	available as standard			
ENVIRONMENT				
Operating ambient temperature	from 0 °C up to +40 °C (from 15 °C to 25 °C for maximum battery life) Temperature class A according to DNV GL			
Relative humidity	5-95% non-condensing			
Maximum altitude	1000 m without derating (max. 3000 m)			
Noise level (ISO 3746)	< 45 dBA		< 50 dBA	
UPS CABINET				
Dimensions W x D x H	89 x 333 x 440 mm	89 x 430 x 440 mm	89 x 608 x 440 mm	
Dimensions RACK U	2U			
Weight	13 kg	18 kg	19 kg	30 kg
Degree of protection	IP20			
EBM - EXTERNAL BATTERY MODULE				
Dimensions W x D x H	89 x 333 x 440 mm	89 x 430 x 440 mm	89 x 608 x 440 mm	
Dimensions RACK U	2U			
Weight	16 kg	29 kg	43 kg	
STANDARDS				
Safety	IEC/EN 62040-1, AS 62040.1.1, AS 62040.1.2			
EMC	IEC/EN 62040-2, AS 62040.2			
Maritime certification	Tested according to type approval program No. 6-800 Appendix A 822.20 SEMICONDUCTOR CONVERTERS, in addition EMC according to IEC 60945			
Product declaration	CE, RoHS (E2376)			

(1) @ 75% of rated load PF 0.7.

Control panel



1. Load present
2. Buzzer off
3. Load level (5 steps)
4. Battery status
5. Load status
6. Overload
7. Input value
8. Normal mode / Battery mode (flashing)
9. Configuration
10. Programmable outlets
11. OFF button
12. ON/TEST and buzzer override button
13. Battery fault / Replace the battery
14. General alarm
15. Navigator button

Standard electrical features

- Built-in backfeed protection.
- Protection against atmospheric phenomena (NTP) for telephone/ADSL modems.
- RJ11 connection for Emergency Power Off (EPO).
- Connection for battery extension modules.

Electrical options

- Battery extension modules.

Standard communication features

- LOCAL VIEW: ideal UPS monitoring and shutdown point-to-point solution for Windows®, Linux and Mac OS X® operating systems.
- HID: UPS management based on Windows® and Mac OS X® embedded service - USB interface.
- MODBUS RTU.

Communication options

- RT-VISION: professional WEB/SNMP interface for UPS monitoring and shutdown management of several operating systems.



ITYS E

Affordable and reliable protection
from 1 to 10 kVA

Single-phase UPS



ITYS 068 A - ITYS 070 A - ITYS 071 A

Best electrical protection

- True online double conversion technology (VFI) assures high availability and total load protection.
- Constant output voltage and frequency regulation makes ITYS E compatible with different applications, operating environments and GenSets.
- Automatic bypass supplies the loads in the event of overloads or faults.

Robust and versatile

- Compact tower UPS system saves space in the operating environment.
- No particular configuration on first startup.
- Easy connections via IEC 320 sockets or terminals.
- Wide input voltage tolerance limits the switchovers to battery mode prolonging the battery life.
- Manual bypass for periodic or emergency maintenance.

The solution for

- > Professional workstations
- > Industrial automation
- > Security systems
- > Telecom systems
- > Banking ATM systems

Technology

- > VFI "online double conversion"

Certifications

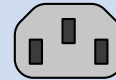
IS 16242 (Part 1)/
IEC 60240-1



R-41030651



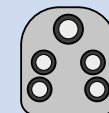
Output connections



- > IEC socket 320 (C13)



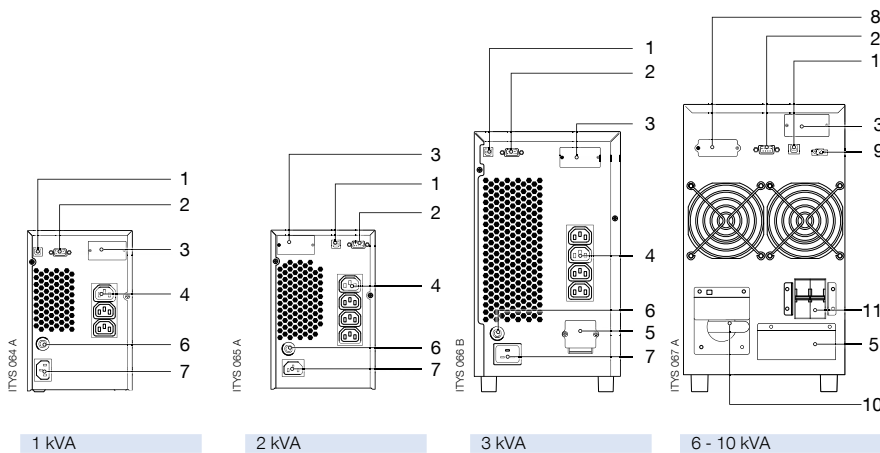
- > Universal socket



- > Indian standard (BIS compliant)

Some models may not be available in your country – please check with your local sales office.

Connections



1. USB serial port
2. RS232 serial port
3. Slot for optional boards
4. Output sockets
5. Output terminals
6. Input protection
7. Input socket
8. External battery connection
9. EPO (Emergency Power Off)
10. Manual bypass
11. Input circuit breaker

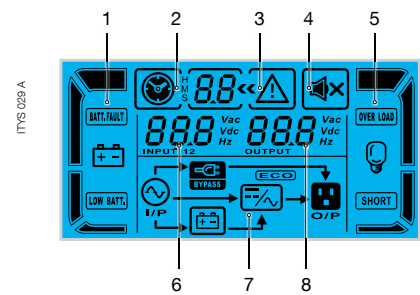
Technical data

ITYS E					
Sn (VA)	1000	2000	3000	6000	10000
Pn (W)	800	1600	2400	4800	8000
INPUT					
Voltage	230 V (1ph) 160÷300 V up to 110 V @ 60% load				
Rated frequency	50/60 Hz				
Power factor	0.99				
OUTPUT					
Rated voltage	208/220/230/240 V				
Voltage tolerance	± 1%				
Rated frequency	50/60 Hz (46÷54 Hz / 56÷64 Hz) (in battery mode 50/60 ± 0.1 Hz)				
Overload	Up to 130% for 1 minute				
Crest factor	3:1				
CONNECTIONS					
IEC standard	3 x IEC 320	4 x IEC 320	4 x IEC 320 + terminals	terminals	
Universal standard	2 sockets	2 sockets	2 sockets + terminals	terminals	
Indian standard	3 sockets	4 sockets	4 sockets + terminals	terminals	
BATTERIES					
Type	sealed lead-acid maintenance free - expected life 3/5 years				
Back-up time @75% of rated VA load pf 0.7 ⁽¹⁾	8 min		9 min		
Voltage ⁽²⁾	36 VDC	96 VDC	192 VDC	240 VDC	
Battery charger ⁽²⁾	Setting up to 6 A				
COMMUNICATION					
Interfaces	RS232 - USB				
Local communication software	LOCAL VIEW				
EFFICIENCY					
Online mode	up to 90%				
ENVIRONMENT					
Ambient temperature	0 to 40°C (15 to 25 °C for maximum battery life)				
Relative humidity	0 to 95% without condensation				
Maximum altitude	1000 m without derating				
Noise level at 1 m	< 55 dBA		< 65 dBA		
UPS CABINET					
Dimensions ⁽¹⁾ W x D x H (mm)	145 x 285 x 220	145 x 400 x 220	190 x 425 x 320	190 x 370 x 640	190 x 450 x 640
Weight ⁽¹⁾ (kg)	10	17	28	60	75
Dimensions ⁽²⁾ W x D x H (mm)	145 x 285 x 220	145 x 400 x 220	145 x 400 x 220	190 x 370 x 320	190 x 450 x 320
Weight ⁽²⁾ (kg)	5	7	8	12	16
Degree of protection	IP20				
STANDARDS					
Safety	EN 62040-1				
EMC	EN 62040-2				
Product declaration	CE				
BIS certification	R-41030651		-	-	

(1) Models with internal batteries.

(2) Models without batteries.

Control panel



1. Battery level / Battery status
2. Back time info
3. General Alarm
4. Buzzer off
5. Load level / Load status
6. Input value
7. UPS mode
8. Output value

Standard communication features

- LOCAL VIEW: ideal UPS monitoring and shutdown point-to-point solution for Windows®, Linux and Mac OS X® operating systems.
- HID: UPS management based on Windows® and Mac OS X® embedded service - USB interface.

Communication options

- Dry-contact card for UPS remote diagnostic.



ITYS

Reliable and versatile power protection
from 1 to 20 kVA

Single-phase UPS



03/2016 397 A

High protection and availability

- True online double conversion technology (VFI) assures high availability and total load protection.
- Constant output voltage and frequency regulation makes ITYS compatible with different applications, operating environments and generator sets.
- Automatic bypass supplies the loads in the event of overloads or faults.

Robust and versatile

- Compact tower UPS system saves space in the operating environment.
- No particular configuration on first startup.
- Easy connections via IEC 320 sockets or terminals.
- Wide input voltage tolerance limits the switchovers to battery mode prolonging the battery life.
- Manual bypass for periodic or emergency maintenance.

Wide battery configurability

- Flexible battery management available for all ITYS models to ensure power supply continuity in the event of an outage.
- Modular battery extension meets a wide variety of power back-up times according to the load to be supplied.
- Modular battery extension enables limitless increases in autonomy, even after installation.
- Powerful battery charger models guarantee constant and reliable operation using external high capacity batteries, therefore providing supply continuity during long outages.

The solution for

- > Professional workstations
- > Server and corporate networks
- > Storage systems
- > Industrial automation
- > Security systems
- > Telecom systems

Technology

- > VFI "online double conversion"

Certifications



Autonomy configurations

> Flexible autonomy



UPS with internal batteries (standard model)

Modular battery extension with 1 or 2 strings

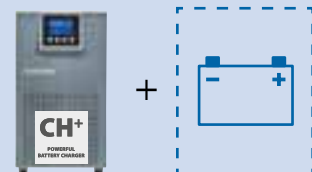
> Extendable autonomy



UPS without internal batteries and with powerful battery charger

N+1 modular battery extension with 1 or 2 strings

> Long autonomy

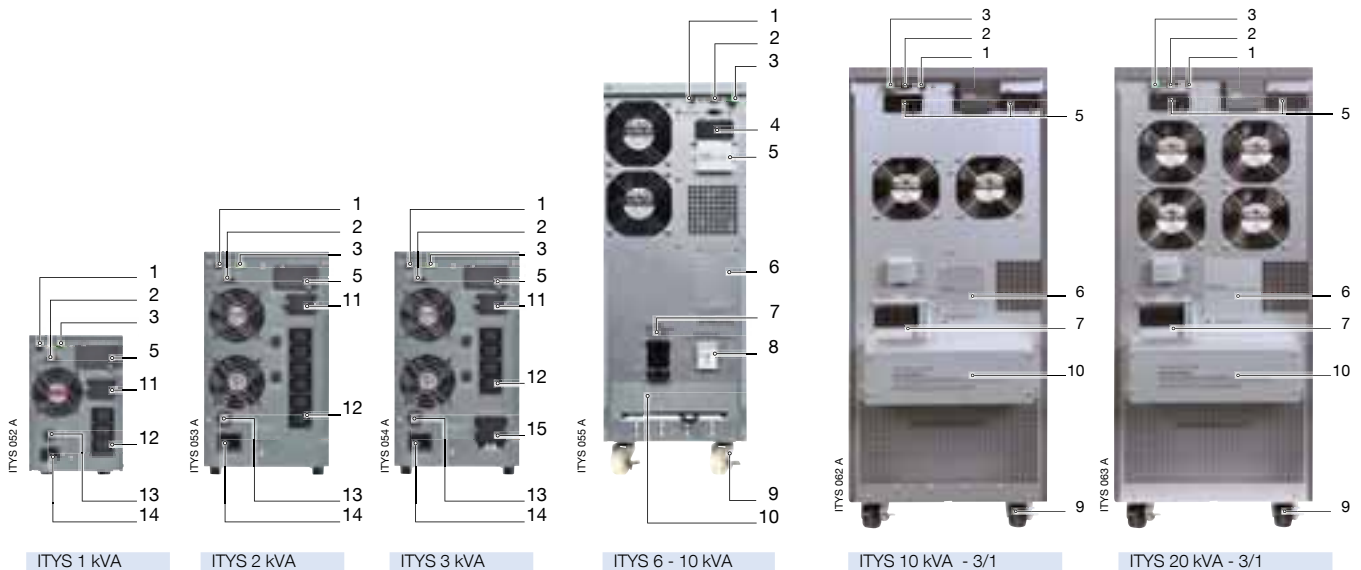


UPS without internal batteries and with powerful battery charger

External battery cabinet

Some models may not be available in your country – please check with your local sales office.

Connections



ITYS 1 kVA ITYS 2 kVA ITYS 3 kVA ITYS 6 - 10 kVA ITYS 10 kVA - 3/1 ITYS 20 kVA - 3/1

- | | | |
|---|--|--|
| <ul style="list-style-type: none"> 1. USB serial port 2. RS232 serial port 3. EPO (Emergency Power Off) 4. Dry contact interface (DB9) 5. Slot for optional communication boards⁽¹⁾ 6. Manual bypass | <ul style="list-style-type: none"> 7. Input protection (thermal breaker) 8. Battery fuse holder 9. Castor wheel with security lock 10. Input, output and external battery terminal board 11. Connection for modular battery extension | <ul style="list-style-type: none"> 12. Output sockets (IEC 320) 13. Input protection 14. Input socket (IEC 320) 15. Output terminals |
|---|--|--|

⁽¹⁾ Dry contact interface or WEB/SNMP network adapter.

Technical data

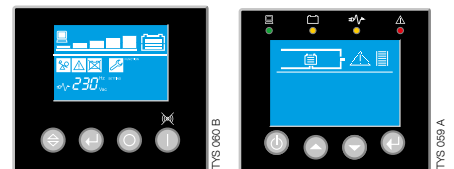
	ITYS - UPS						
Sn	1000 VA	2000 VA	3000 VA	6000 VA	10000 VA	10000 VA	20000 VA
Pn	800 W	1600 W	2400 W	5400 W	9000 W	9000 W	18000 W
Input/output	1/1			3/1 or 1/1			
INPUT							
Rated voltage	230 V (110±300 V)			230 V (176±276 V)		400 V (3/1), 230 V (1/1)	
Rated frequency	50/60 Hz			50/60 Hz (45±55 Hz/54±66 Hz)		50/60 Hz ± 10 %	
Power factor	0.98			0.98		0.99	
OUTPUT							
Rated voltage	208 / 220 / 230 / 240 V (± 2 %)			208 / 220 / 230 / 240 V (± 1 %)			
Rated frequency	50/60 Hz (45±55 Hz/54±66 Hz)						
Overload	Up to 150% for 10 seconds			Up to 150% for 1 minute		Up to 150% for 10 seconds	
Crest factor	3:1						
Connections	3 x IEC 320 (C13)	6 x IEC 320 (C13)	4 x IEC 320 (C13)+ terminals	terminals			
BATTERIES							
Type	sealed lead-acid maintenance free - expected life 3/5 years						
Voltage	36 V DC	96 V DC	240 V DC	288 V DC			
Back-up time ⁽¹⁾⁽²⁾	10 min	17 min	9 min	13 min	9 min	12 min	12 min
Battery charger ⁽³⁾	8 A			4 A		4 A ⁽⁴⁾	
COMMUNICATION							
Interfaces	RS232 - USB		RS232 - USB - Dry contact		RS232 - USB		
Ethernet adapter	NET VISION (TCP/IP & SNMP) optional card						
Local communication software	Local View						
EFFICIENCY							
Online mode	up to 92%			up to 94%			
ENVIRONMENT							
Ambient service temperature	0 °C to +40 °C (15 °C to 25 °C for maximum battery lifetime)						
Relative humidity	< 95 % non-condensing						
Maximum altitude	1000 m without de-rating						
Noise level at 1 m	< 50 dBA			< 55 dBA			
UPS CABINET							
Dimensions W x D x H (mm)	145 x 400 x 220	192 x 460 x 347	260 x 550 x 708	350 x 650 x 890			
Weight (models with internal batteries)	13 kg	31 kg	80 kg	84 kg	115 kg	188 kg	
Weight (models without internal batteries)	7 kg	13 kg	25.5 kg	29.5 kg	48 kg	58 kg	
Degree of protection	IP20						
STANDARDS							
Safety	IEC/EN 62040-1, AS 62040.1.1, AS 62040.1.2						
EMC	IEC/EN 62040-2, AS 62040.2						
Product declaration	CE, RCM (E2376)						

⁽¹⁾ @ 75 % of rated load (models with internal batteries) PF 0.7
⁽²⁾ Models with internal batteries

⁽³⁾ Models without batteries
⁽⁴⁾ Up to 8 A on request

Advanced communication

- Wide range of communication protocols available as options (including JBUS, TCP/IP and SNMP) for integration into LAN networks or building management systems (BMS).
- RS232 advanced connection for the management of power supply and local/remote shutdown of the applications with Windows®, Linux and Mac OS X® systems.
- USB port for direct interfacing with Windows® and Mac OS X® systems.
- Clear and uncluttered LCD interface for easy UPS monitoring, even for less specialist users.



ITYS 1-2-3 kVA

ITYS 6-10 kVA

Local and IP network management solutions

- LOCAL VIEW: ideal point-to-point software for UPS monitoring and shutdown of Windows®, Linux and MAC OS X® operating systems (standard for all models).
- NET VISION: professional network adapter for monitoring and controlling UPS units from a remote location (option for all models).



ITYS PRO

Reliable cost-effective power protection
from 10 to 20 kVA

Single-phase and
three-phase UPS



GAMME 667 A

The solution for

- > Server rooms
- > Service sector
- > Infrastructure
- > Healthcare sector
- > Light industrial applications

Technology

- > VFI "online double conversion"

Advantages



Different UPS configurations, a single battery cabinet



UPS - Type S
Without batteries



Battery cabinet



UPS - Type M
With batteries



UPS - Type T
With batteries



UPS - Type T
With transformer

Compact, cost-effective protection

- Easy to order, install and operate.
- State-of-the-art technology providing high levels of performance in a very compact unit.
- Online double conversion mode with an output power factor of 0.9 providing 12% more active power compared to UPS with a power factor of 0.8.
- Best-in-class online efficiency.
- Innovative battery management extending battery life (virtually ZERO ripple on batteries).
- Redundant bypass protection reducing the risk of power cuts.
- Integrated LAN network monitoring via web browser. Multilanguage display.

Tailored to your environment

- Designed to operate in challenging electrical environments.
- Ideal for protecting sensitive IT and non-IT applications.
- Flexible battery configurability without changing the footprint.
- Up to 3 battery chargers for very long back-up time requirements.
- Models with internal isolation transformer and IP31 degree of protection.
- IP31 degree of protection available on request for transformerless models.
- Low electromagnetic emissions compliant for commercial installations.
- Embedded redundancy on the bypass control and power supply to minimise any risk of interrupting the load.
- A single 25-block battery string simplifies the connection and reduces both the overall cost and the space required.

Some models may not be available in your country – please check with your local sales office.

Standard electrical and mechanical features

- Dual input mains (3/1 models).
- Internal maintenance bypass
- Backfeed protection: detection circuit.
- EBS (Expert Battery System) for battery management.
- IP31 degree of protection (models with transformer).

Electrical and mechanical options

- Dual input mains (3/3 models).
- External battery cabinet.
- Additional battery chargers.
- IP31 degree of protection (models without transformer).

Standard communication features

- User-friendly multilingual interface with graphic display.
- Integrated LAN network monitoring via web browser.
- 2 slots for communication options.

Communication options

- Dry-contact interface.
- MODBUS interface.

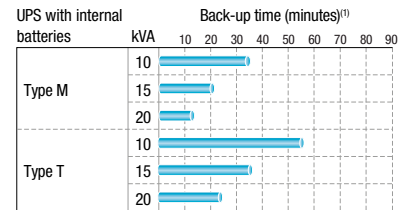
Local and IP network management solutions

- LOCAL VIEW: ideal point-to-point software for UPS monitoring and shutdown of Windows®, Linux and MAC OS X® operating systems.
- NET VISION: professional network adapter for monitoring and controlling UPS units from a remote location (option for all models).

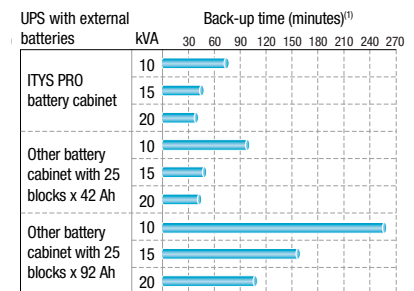
Remote monitoring service

- LINK-UPS, remote monitoring service that connects your UPS to your Critical Power specialist 24/7.

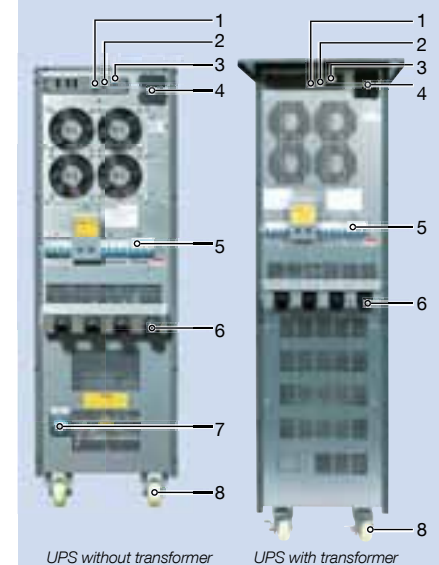
Technical data



(1) Operating with typical load



Rear view connections



1. EPO (Emergency Power Off)
2. Ethernet port
3. RS232 serial port
4. Slot for optional communication boards
5. Mains, auxiliary mains, output and manual bypass protective devices
6. Input, output and external battery terminal board
7. Battery protection (M and T models)
8. Castor wheel with security lock

ITYS PRO			
Sn [kVA]	10	15	20
Pn [kW] ⁽²⁾⁽³⁾	9	13,5	18
Input/output 3/1 ⁽²⁾	•	•	•
Input/output 3/3 ⁽²⁾⁽³⁾	•	•	•
INPUT			
Rated voltage	3P+N 400 V		
Voltage tolerance	± 20 % (-40 % @ 70 % of nominal load)		
Rated frequency	50/60 Hz ± 10 %		
Power factor / THDI	0.99 / <2.5 %		
OUTPUT			
Rated voltage	1P+N: 230 V (configurable: 208 ⁽¹⁾ /220/230/240) 3P+N: 400 V (configurable: 360 ⁽¹⁾ /380/400/415)		
Voltage tolerance	± 1 %		
Rated frequency	50/60 Hz ±2 (up to ±5 with generator - selectable)		
Overload	Up to 150 % for 30 seconds		
Crest factor	3:1 (complying with IEC 62040-3)		
Connections (output)	Terminals		
BYPASS			
Rated voltage	rated output voltage		
Voltage tolerance	±15 % (± 20 % with generator - selectable)		
Rated frequency / tolerance	50/60 Hz ±2 (up to ±5 with generator - selectable)		
COMMUNICATION			
Interfaces	RS232 - Ethernet		
Optional cards	SNMP card - ADC/RS485 card - MODBUS card		
Communication software	LOCAL VIEW - NETVISION - WEB BROWSER		
EFFICIENCY			
Online mode	without transformer: up to 95%; with transformer: up to 92%		
ECO mode	without transformer: up to 98%; with transformer: up to 95%		
ENVIRONMENT			
Ambient temperature	0 to 40 °C (15 to 25 °C for maximum battery life)		
Relative humidity	0 to 95 % without condensation		
Maximum altitude	1000 m without derating		
Noise level at 1 m	<51 dBA		<54 dBA
UPS CABINET			
Type S - Dimensions W x D x H	370 x 780 x 810 mm (IP20), 440 x 932 x 812 mm (IP31)		
Type S - Weight (without batteries)	58 kg		
Type M - Dimensions W x D x H	370 x 780 x 1170 mm (IP20), 440 x 932 x 1172 mm (IP31)		
Type M - Weight (without batteries)	75 kg		
Type T - Dimensions W x D x H	370 x 780 x 1385 mm (IP20), 440 x 932 x 1387 mm (IP31)		
Type T - Weight (without batteries)	without transformer: 82 kg; with transformer: up to 208 kg		
Degree of protection	without transformer: IP20 (IP31 on request); with transformer: IP31		
STANDARDS			
Safety	EN 62040-1, AS 62040.1.1, AS 62040.1.2		
EMC	IEC/EN 62040-2 class C2, AS 62040.2		
Performance	IEC/EN 62040-3, AS 62040.3		
Product declaration	CE, RCM (E2376)		

(1) Pout = 90 % Pnom. (2) Models without transformer and models with transformer connected to the UPS output.
(3) For models with transformer connected to the UPS input, please contact us.



ASYS

Compact 19" transfer switch for power redundancy

16 A, 19" Rack mounted

Automatic Transfer System



The solution for

- > Rack servers
- > IT applications
- > Routers, switches, hubs, etc

Advantages



Rack automatic system for IT networks

The ASYS automatic transfer system provides reliable redundant power to single corded IT equipment.

It performs an automatic and seamless transfer of the critical load to an alternate source in case of preferred source corruption. The transfer is carried out without source overlapping.

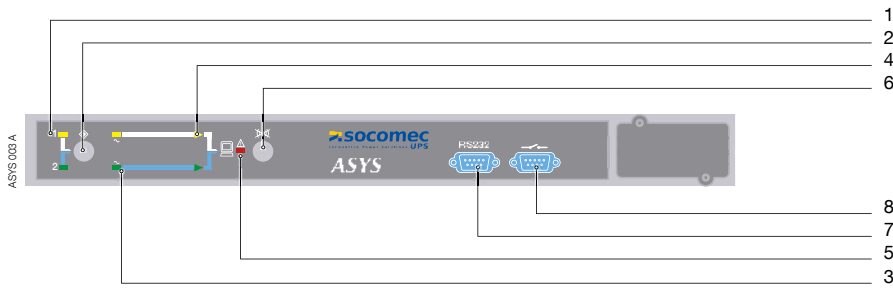
Continuity of service for critical applications

- Located as close as possible to the application, ASYS allows for a highly accessible architecture.
- ASYS has been designed to be easily installed near sensitive applications, to fit into 19" racks.

Easy site operation

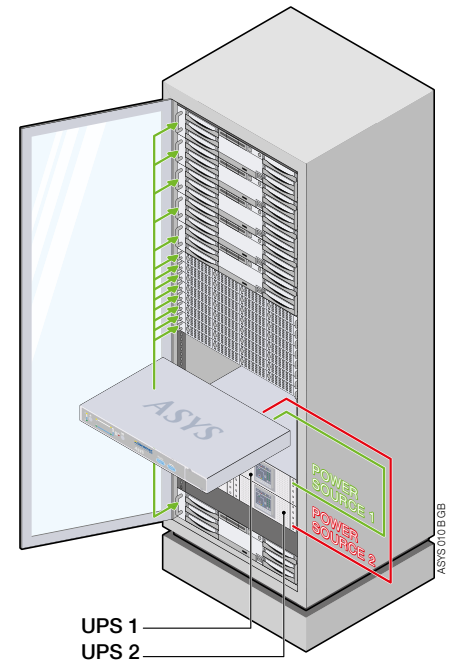
- Easy changing of the preferred supply path without modifying the cabling.
- Carried out by the operator and secured by the automatic control, ASYS switches the load from one path to the other.
- Provides redundant power supply to single corded equipment, servers, routers, switches, hubs, etc.
- Powered by two separate independent sources (UPS).
- Permanent source monitoring.
- Automatic switching to alternate source.
- Synchronised and non-synchronised source management
- Preferred source selection on front panel.
- Fast switching with synchronised or out of phase sources.
- Compact 19" rack 1U system.

Front view

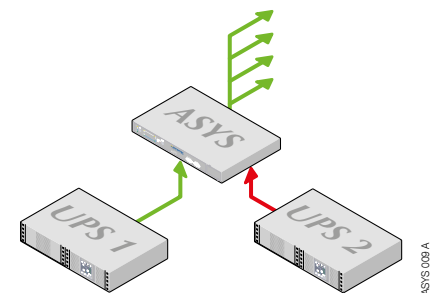


1. Preferred source indication
2. Preferred source selection
3. Input source status
4. Supplying source
5. General alarm
6. Buzzer acknowledge
7. RS232 communication port (MODBUS RTU)
8. Dry contacts communication port

Application Rack



Example of possible architecture



Technical data

ASYS	
Model	16A-230
INPUT	
Rated voltage	220/230/240 V (selectable)
Voltage tolerance	± 12% (± 20% available on request)
Rated frequency	50/60 Hz (auto sensing)
Frequency tolerance	± 15%
Rated current	16 A
OUTPUT	
Rated voltage	220/230/240 V (selectable)
Voltage tolerance	± 12%
Rated frequency	50/60 Hz
Frequency tolerance	± 15%
Rated current	16 A
Transfer time	6 ms (typical), ≤ 15 ms (maximum)
CONNECTION	
Input	2 x IEC 320-C20
Output	1 x IEC 320-C19 2 x 3 output IEC 320-C13
Communication	5 dry contacts, RS232
ENVIRONMENT	
Operating ambient temperature	0 to 40 °C
Relative humidity	20% - 85% without condensation
Maximum altitude	≤ 1000 m without derating
Acoustic level at 1 m (ISO 3746)	< 25 dBA
Cooling	Natural
MECHANICAL SPECIFICATIONS	
Dimensions W x D x H	430 x 315 x 44 mm (1U)
Weight	5 kg
Degree of protection	IP30
Colours	Pantone 432C



RACK PDU

Compact and reliable power distribution unit
monitored and managed rack PDU

Power Management
Solution

The solution for

- > Data center rack cabinet
- > Networking infrastructure
- > Computer rooms



Ensuring efficient load development and power supply flexibility in server rooms is becoming increasingly important, which is why SOCOMEC offers a variety of PDUs for rack applications. SOCOMEC PDUs in 0U configuration (single-phase or three-phase) with metered or monitored technology, and PDUs in 1U configuration (still single-phase but with single or dual power supply) with managed technology, allow IT managers to find the configuration best suited to their requirements.

The ADD-IN SNMP module (available as an option), allows the remote control and monitoring of the PDUs via LAN network.

Metered or monitored Zero-U vertical PDU

With only one single-phase or three-phase input, these PDUs guarantee reliable power distribution for equipment with small and medium-scale energy requirements integrated into rack cabinets. The PDU does not require the installation of 'U space' due to its vertical position on the rear of the rack cabinet, and simplifies the electrical connection of many devices, saving time during fitting procedures and offering easy power supply configuration adjustment. The numerous output sockets and their positioning help this PDU fit perfectly into high density network solutions.

Using two PDUs in the same rack cabinet allows the development of a redundant architecture typical of critical applications which use dual cord electronic devices.

Monitoring and supervision

The two-digit LED display allows an easy reading and monitoring of the current consumption.

The reverse display function allows the cable input both from above and below, ensuring a proper reading in every installing position.

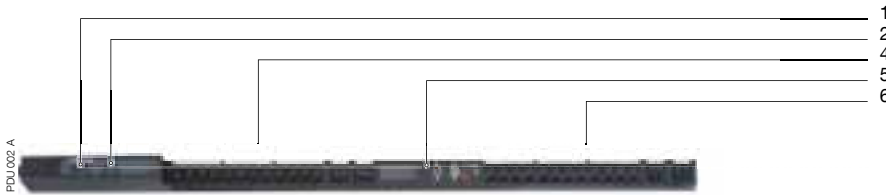
Managed 1U PDU

These PDUs, which have one or two single-phase inputs, are ideal for mission critical power distribution for equipment with small and medium-scale energy requirements integrated into rack cabinets. The extremely compact solution in a single rack unit allows installation inside the rack while guaranteeing at-a-glance data viewing via the display on the front panel. These PDUs offer an extremely sophisticated level of monitoring and management, meaning server consumption for each output socket can be measured as both instantaneous and cumulative values (current, energy and power factor) and recorded in log files which can be consulted and downloaded easily via a web interface. The individual sockets can also be controlled remotely (switch-on, switch-off or power-cycle), both manually and via the web interface or the remote console, or even in a scheduled manner.

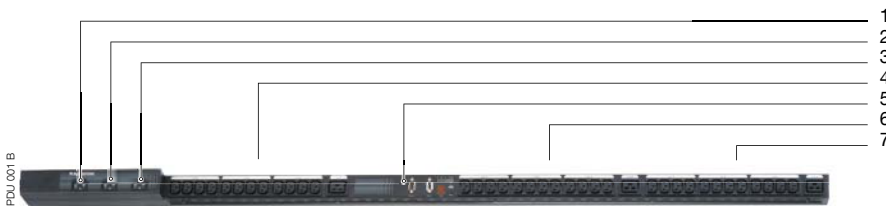
Up to 5 PDUs can be connected in a 'daisy chain' configuration, allowing the control and monitoring of all PDUs from a single access point, transforming the PDUs into a real power management system. Extensive communication capability (web browser, NMS, Telnet, SNMP, HyperTerminal, SMTP, SSL V3, SSH V1), and the use of 'secure' protocols and multi-account management make it an ideal device for power management in IT applications.

Zero-U PDU

Connections



Single-phase model



Three-phase model

1. ON-OFF switch segment #1
2. ON-OFF switch segment #2
3. ON-OFF switch segment #3
4. Output connectors segment #1
5. Front panel
6. Output connectors segment #2
7. Output connectors segment #3

Communication options

PDU VISION, WEB/SNMP manager interface for the connection to the LAN network. The device - suitable for remote monitoring – can be integrated into the PDU.



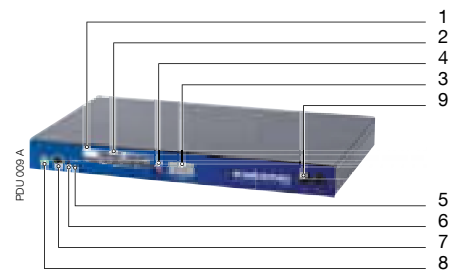
PDU.008.A

Technical data

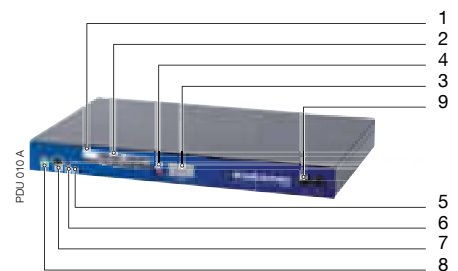
Zero-U PDU		
Item code	NRT-OP-PDU1-28	NRT-OP-PDU3-39
Input / output	1/1	3/1
INPUT		
Rated voltage	200-240 V (1ph)	346-415 V (3ph, Y+N)
Rated frequency	50/60 Hz	
Rated current	32 A (1ph)	16 A (3ph)
Connector	IEC309-32 A	IEC309-16 A
OUTPUT		
Rated voltage	200-240 V	
Connectors	(24) IEC320-C13, (4) IEC320-C19	(36) IEC320-C13, (3) IEC320-C19
COMMUNICATION		
Interfaces	RS232 - (WEB/SNMP optional)	
Environmental sensor	•	
ENVIRONMENT		
Operating ambient temperature	0 to 45 °C	
Relative humidity	5% to 95% without condensation	
Maximum altitude	operating: up to 2000 m	
RACK PDU		
Dimensions W x D x H	48 x 1250 x 50 mm	48 x 1560 x 50 mm
Weight	5.4 kg	6.0 kg

iPDU		
Item code	PDU1U-I116-I011	PDU1U-I116-I012
Input / output	1/1	
INPUT		
Rated voltage	200-240 V (1ph)	
Rated frequency	50/60 Hz	
Rated current	16 A (1ph)	2x 16 A (1ph)
Connector	IEC320 C20	2x IEC320 C20
OUTPUT		
Rated voltage	200-240 V	
Connectors	(12) IEC320-C13	(6+6) IEC320-C13
COMMUNICATION		
Interfaces	RS 232 - WEB/SNMP	
ENVIRONMENT		
Operating ambient temperature	0 to 50 °C	
Relative humidity	10% to 80% without condensation	
Maximum altitude	operating: up to 2000 m	
RACK PDU		
Dimensions W x D x H	436 x 300 x 44 mm (1U)	
Weight	2.0 kg	

iPDU



Front Panel of 2-inlet Model



Front Panel of 1-inlet Model

1. Input power status indicator
2. Output power status indicator (A÷L)
3. Status indicator
4. Daisy-chaining Mode DIP Switch (C-link DIP)
5. Reset button
6. Operation mode DIP switch
7. Serial (CONSOLE) Port
8. Digital output
9. Breaker



Communication and connectivity

The ideal solution for integrated system management and data integrity

Management solutions



SITE 498 A

The solution for

- > Data centres
- > Emergency applications
- > Offices
- > Service industries
- > Industry
- > Telecommunications
- > Medical

A complete range of connectivity and communication

Thanks to the UPS and STS systems, the sensitive load is protected from electrical problems caused by the insufficient reliability of the mains power supply. However, this essential protection often does not guarantee the maximum availability of electrical energy for the load.

SOCOMEK solutions for connectivity and software for monitoring and managing power supplies can inform the user immediately about system status, and implement automatic procedures to control the electrical system and protect the IT loads. The different solutions can be used for an individual PC, servers, data centres, or solutions with a field bus that are typical of process systems.

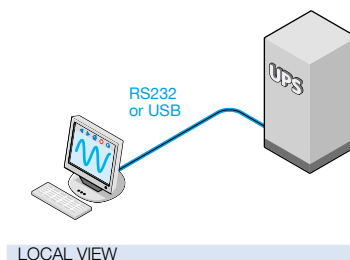
The communication capacity of UPS systems is normally used to meet the following requirements:

- clear, instant information: critical events for the device and system are communicated clearly and immediately by email (to the user), pop-ups or traps (to the local user and remote administrator).
- guaranteed data integrity: depending on the event it is possible to configure automatic user-defined actions (scripts), and manage automatic and ordered shutdown procedures for computers, servers or virtual/physical server infrastructure.
- installation monitoring: electrical measurements and system or installation events are logged continually and made available for the user or SOCOMEK Maintenance & Professional Services to analyse system/load status. As a result it is possible to assess whether or not the optimum architecture has been chosen, or if action is required to increase system reliability.
- device control: for some devices remote control is possible, such as manual management of output sockets or switching of the UPS onto the mains, inverter or stand-by.

Local monitoring solution

LOCAL VIEW is a monitoring and management software for UPS systems via USB or serial RS232 allowing the system's automatic shutdown in the event of a prolonged power cut. LOCAL VIEW avoids data losses and system damage when the PC, workstation or server are not supervised by the operator during the power cut. Its simple and user-friendly graphic interface makes it easy to use even for less experienced users. Available in several languages, LOCAL VIEW provides clear, immediate and detailed information about the status of the UPS.

It can be easily updated (via internet) to ensure the highest level of protection to PC, workstations and servers. LOCAL VIEW is compatible with Windows x86 and x64 platforms, LINUX distributions and MAC OSx. LOCAL VIEW software is available from SOCOMEC's website for free download.



LOGIC 015 A GB

LOCAL VIEW

Network solutions (UPS connection to the LAN)

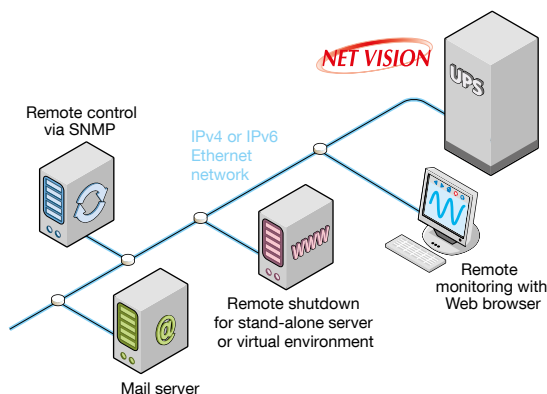
NET VISION is the most common Ethernet interface for use with SOCOMEC products. It is a communication interface designed for business networks. The UPS behaves exactly like a networked peripheral, it can be managed remotely and allows the shutdown of server-based workstations. NET VISION allows a direct interface between the UPS and Ethernet network avoiding dependence on the server. It is therefore compatible with all networks and multi-OS since it interacts via the Web browser.

The main specifications and functions are as follows:

- 10 / 100 Mb Ethernet connection (RJ 45),
- UPS monitoring screen via a Web browser,
- remote shutdown of stand-alone server (compatible with JNC) or Virtual environment (compatible with VIRTUAL-JNC),
- notification of faults via email to up to 8 addresses,
- UPS management via SNMP protocol,
- monitoring of the operating environment (optional EMD temperature and humidity sensor). Configurable alarm trigger, notification via email.



MGD 087 A



LOGIC 017 C GB

EMD (Environment Module Device)

EMD is a device to be used in conjunction with the NET VISION interface and provides the following features:

- temperature and humidity measurements + dry contact inputs,
- alarm thresholds configurable via Web browser,
- notification of environmental alarm via email and SNMP traps.



Communication and connectivity

Software

Management solutions

Network solutions (shutdown via network)

Controlled network server shutdown is managed by the "shutdown client" which, installed on the remote server, enables its shutdown. JNC (JAVA & .NET Shutdown client) is a small software programme that is installed in computers to be shut down.

It shows UPS status and executes the shutdown sent by UPS Ethernet interface, such as NET VISION. It has been developed by SOCOMEC on a JAVA and .net platform.

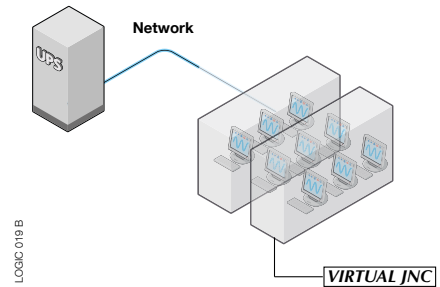
JNC software agent (JAVA & .NET client) is compatible with the latest Windows® operating system versions, common Linux distributions, and Mac OS X® operating system. JNC software is available from SOCOMEC's website for free download.

Virtual system solutions

Server virtualisation, which makes it possible to exploit the advantages of IT infrastructure consolidation, is becoming increasingly widespread. As a result, the correct management of virtual machines in the event of a fault with the electric power supply system is an increasingly common requirement. VIRTUAL JNC is the SOCOMEC solution especially for virtual systems. It fully supports virtual machine shutdown, by acting on the physical server to correctly shutdown all virtual machines running on that server.

On Virtual Environment systems it is possible to manage the order of virtual machine shutdown (defining the shutdown as sequential or staggered) and systems with more than one host (also in a cluster configuration), in a simple, efficient manner. VIRTUAL JNC is compatible with all SOCOMEC UPS systems that support shutdown management via LAN. VIRTUAL JNC is compatible with VMware vCenter™ / vSphere, Microsoft™ HYPER-V and Citrix XenServer.

VIRTUAL-JNC requires to be installed in a Windows® virtual machine. VIRTUAL-JNC software is available in the SOCOMEC's web site for free download.



Centralised supervision solution

Central UPS supervision

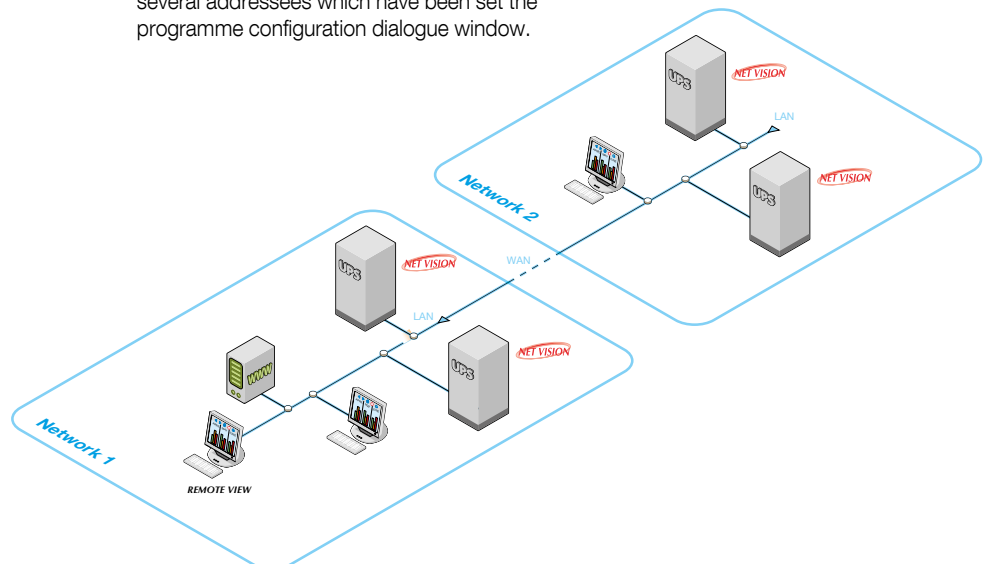
On installations that use various UPS systems, the network administrator (or system administrator) can request a simultaneous view of all UPS systems from a single console. In general, devices are monitored with BMS (Building Management Systems) programmes which use JBUS/MODBUS protocol to communicate or with NMS (Network Management Systems) programmes, which use SNMP protocol for data exchange. In industrial environments it is also common to use the PROFIBUS or PROFINET protocol to communicate with centralised control and automation systems. These protocols are supported by SOCOMEC products and can therefore be interfaced with monitoring programmes.

REMOTE VIEW

In addition to these protocols, another SOCOMEC solution is REMOTE VIEW, a central monitoring programme for UPS systems over an Ethernet network, which is simpler and less expensive than the complex NMS platforms.

REMOTE VIEW is an application able to monitor simultaneously up to 1,024 devices equipped with NET VISION card or box through the Ethernet network. Users are provided with tree-view (hierarchy structure can have up to 8 levels) and list-view. When an alarm is triggered in one or other monitored UPS, (trap event), the icon that represents the UPS will change colour according to the severity level, sending an email to several addressees which have been set the programme configuration dialogue window.

If the programme is running in the background, a pop-up message appears. Input and output voltages, battery capacity and load percentage are continuously monitored by the REMOTE VIEW programme. Plant supervisors and technicians can monitor all the UPS in the same programme window. REMOTE VIEW runs on Windows® 2000/2003/2008 (R2)/XP/VISTA/7 with administrator rights. REMOTE VIEW software is available from the SOCOMEC's website for free download.



MODBUS TCP interface

The interface is directly connected to the network via RJ45 connector (10 / 100Mb Ethernet connection).

MOD 087 A



Dry contact interface

The dry contact interface enables the control of up to three digital inputs and four outputs for information processing:

- 3 insulated inputs (external contacts):
 - emergency stop devices (ESD),
 - operation with generating set,
 - battery protection status.
- 4 change-over contact outputs:
 - general alarm,
 - back-up operation,
 - bypass operation,
 - preventive maintenance request.

MASTE 015 B



These are fully configurable. Depending on the range, several ADC cards can be fitted to the UPS.

BACnet/IP interface

The interface is directly connected to the network via RJ45 connector (10 / 100Mb Ethernet connection).

MOD 087 A



Serial port interface

Several UPS have RS232 and/or RS485 with JBUS/MODBUS protocol embedded. Should the UPS need an isolated RS485 port, an additional interface card can be used.

- The serial connection interface makes it possible to communicate with BMS systems (Building Management Systems) using JBUS/MODBUS or PROFIBUS/PROFINET protocols (on request).
- All UPS information can be remotely accessed:
 - status, measurements (V, A, kVA, t°...)
 - alarms, controls.

LOGIC 022 A



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